REMARKS

Applicant's attorney is appreciative of the telephone interview granted by the Examiner on October 22, 2009. At that interview, the Examiner proposed an amendment to Claim 18 which would place the application in condition for allowance.

In the Office action, an objection was raised to Claim 18, and the requested correction has now been made.

Objection has been raised to the drawings on the basis that they do not show the respective tunnel diodes in active regions as described in the specification. It is believed that this objection should be taken in conjunction with the rejection of Claims 18-20 under 35 USC 112, first paragraph, on the basis that it is not clear whether the recited absorption layer is formed directly on the underlying active zone or through a tunnel diode.

The specification is very clear on this point. At page 12, lines 17-20, it is specifically stated:

> If the intensity of an individually active zone AZn (light emitting diode)-as shown in Fig. 4a, b-exhibits a brighter or more intense peak 20, it is possible to place an absorption layer ABS of suitable thickness, and made of the same material from which the pn layer AZn is made, directly on top of the active zone.

Thus, the absorption layer ABS is grown directly on an active zone. In order to clarify this point, Applicant has submitted a new Figure 4, in which each layer has been labeled, and in which, as noted in the specification, the arrangement of layers is identical to Figure 3, with the exception of the inclusion of an absorption layer, Abs. In new Figure 4, the absorption layer is placed directly on top of layer AZ3, and is disposed between layer AZ3 and layer TD3. In these diagrams, each active layer is shown as two layers, a

p layer and an n layer as is shown in Figure 1.

Withdrawal of this rejection is requested.

Claims 18-20 have been rejected under 35 USC 112, second paragraph, as being indefinite on a number of grounds.

Claim 18 has been amended to recite a "first and lower active zone (AZ1) of said active zones (AZ1 - AZn)" and thus the claim is clear that the first active zone is the first of the active zones recited in the preamble.

Objection has been raised to the recitation "to correspond to the intensity of other active zones." This recitation has now been canceled, and has been replaced by the recitation that the absorption layer adjusts the intensity of the light emitted by the at least on active zone "to generate multiple photon-emission peaks of different wavelengths with substantially equalized intensities within the multiple wavelength diode." This feature of the invention is disclosed on page 3 of the specification, and is done to improve the light yield, and to generate a plurality of photon-emission peaks of different wavelengths within a semiconductor material. It is also an object of the invention to achieve substantially equalized intensities of emitted light of the respective active zones in the event of a series connection, as discussed on page 6 of the specification.

Claim 20 has been amended to delete the "suitable compositions" recitations, and the dependent claims have been amended in general as requested by the Examiner so that the language agrees with claim 18 as amended.

Withdrawal of this rejection is requested.

Claims 18-20 have been rejected under 35 USC 102(b) or under 35 USC 103(a) over Wanlass et al.

The invention is directed to a multi-wavelength light-emitting diode, and while Wanlass et al does disclose LED's, the reference is not concerned with the problem of

generating photon-emission peaks of different wavelengths and to equalize their intensities, as in the claimed invention.

According to the invention, an absorption layer is grown on at least one of the active zones and formed of the same material as the pn layer of the active zone. The absorption layer is thus arranged between an active zone and a dividing layer.

The Office action refers to Figure 12, and alleges that Figure 12 discloses a substrate 198 with at least two active zones being the pn junction portions in 196, 194 and 192, each of which absorbs radiation of a different wavelength, the lowest active zone 196 being grown on the surface of the substrate and the other active zones being epitaxially grown on the lowest active zone, with the active zones being serially connected. Tunnel diodes are disposed between the active zones, and the Office action takes the position that the non-junction in 194 and/or 192 constitutes an absorption layer to absorb photons of certain wavelengths, is made of the same material as the underlying pn layer.

It must be initially noted that while Wanlass et al does broadly disclose LED devices, the device shown in Figure 12 *is not an LED device*, but rather a solar photovoltaic converter device 190 which apparently receives radiation by its upper surface.

At the interview, the Examiner reiterated his position that the very top layer of layers 196, 194, 192 shown Fig. 12 of Wanlass et al would serve as absorption layers, even if not disclose for that purpose. However, the Examiner indicated that such layers, even if absorption layers, would not serve to equalize the intensities of multiple, light generating layers, and indicated that incorporation of this feature of the invention in claim 18 would clearly distinguish over

As claim 18 has now been amended as proposed at the interview, withdrawal of this rejection is requested.

In view of the foregoing amendments and remarks, Applicant submits that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,

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